



## Wireless E-911 Funding

Steve Marzolf, E-911 Coordinator  
Virginia Division of Public Safety Communications  
[www.va911.org](http://www.va911.org)

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## Local Issue



- ◆ Provision of E-911 is a local issue.
- ◆ 114 localities provide wireline E-911.
- ◆ 20 localities do not have wireline E-911.
- ◆ Wireless Board and DPSC provide funding and technical support when asked.
- ◆ Timing, priority, and effort must come from the locality.

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## Current Legislation



- ◆ \$0.75 surcharge on wireless telephone bills.
- ◆ Wireless E-911 Services Board of 14 members.
- ◆ PSAPs and CMRS Providers allowed to seek "reasonable" and "direct" costs for the provision of wireless E-911 Phase I and II.
- ◆ Established deadlines for the provision of wireline E-911 and wireless 911.
- ◆ Caps the wireline surcharge at \$3.00.

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## Board Membership



- ◆ N. Jerry Simonoff  
Chairman
- ◆ Jim McDonnell  
Vice-Chairman  
PSAP Rep.
- ◆ David Vo Moll  
Treasurer
- ◆ Tom Hanson  
PSAP Rep.
- ◆ Terry Hall  
EMS Rep.
- ◆ Melvin Breedon  
Local Financial Officer Rep.
- ◆ Chief Henry Stanley  
Police Chief Rep.
- ◆ Julian Taliaferro  
Fire Chief Rep.
- ◆ Sheriff Ron Oakes  
Sheriff Rep.
- ◆ Captain John Furlough  
State Police Rep.
- ◆ Ralph Jones  
DEM Rep.
- ◆ Robert Woltz  
LEC Rep.
- ◆ Edward Coglio  
PCS Rep.
- ◆ Bob Layman  
Cellular Rep.

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## Overall Accomplishments



- ◆ Provided the following funding:

| FY   | PSAPs | Localities<br>Served | PSAP<br>Funding | Wireless<br>Provider Funding |
|------|-------|----------------------|-----------------|------------------------------|
| 2000 | 28    | 23                   | \$4,316,115     | \$396,144                    |
| 2001 | 40    | 50                   | \$7,047,639     | \$1,862,736                  |
| 2002 | 83    | 92                   | \$14,303,163    | \$2,375,186                  |
| 2003 | 125   | 131                  | \$18,871,783    | \$11,164,557                 |
| 2004 | 116   | 121                  | \$15,902,895    | \$9,054,044                  |

- ◆ All localities are now seeking funding.

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## Wireline E-911



- ◆ Board to provide funding and assistance to localities not wireline E-911 as on July 1, 2000.
- ◆ 37 localities met this requirement.
- ◆ \$9.8 million was appropriated in FY2003.
- ◆ Funding is only available for FY2003.

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## Wireline Funding



### Allowable Cost

- ◆ Mapping
- ◆ Addressing
- ◆ Street signage
- ◆ Customer premise equipment (CPE)
- ◆ Initial network costs

### Disallowed Costs

- ◆ Recurring E-911 costs
- ◆ Voice logging equipment
- ◆ Computer-aided dispatch
- ◆ Buildings and furnishings
- ◆ Radio systems

## Capped Composite



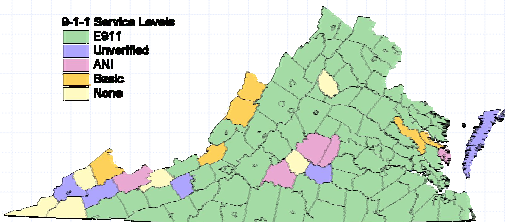
- ◆ Uses the Composite Index as basis for determining "ability to pay".
- ◆ Caps the local share of funding to that which can be generated with a \$1.50 surcharge for a period of 24 months.

## Wireline E-911 Status



9-1-1 Service Levels

- E911
- Unverified
- ANI
- Basic
- None



## Wireless 9-1-1 Problem



- ◆ Wireline enhanced 9-1-1 provides the address of the calling party.
- ◆ Wireless 9-1-1 provides no information on the caller.
- ◆ The percentage of wireless calls is increasing (over 50% of 9-1-1 in urban areas).

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## FCC Requirements



- ◆ Complete all calls to 9-1-1 regardless of billing.
- ◆ PSAP must make a request to the CMRS provider.
- ◆ PSAP must be able to use the data.
- ◆ A cost recovery mechanism must be in place for the PSAP.

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## Wireless Enhanced 9-1-1



- ◆ Phase 0
  - Locality taking the call typically on a dedicated seven-digit line.
- ◆ Phase I
  - Call is routed through the 9-1-1 system based on the cell site/sector receiving the call and provides the cell site information and call back number.
- ◆ Phase II
  - Same routing as Phase I, but latitude/longitude is provided within acceptable error rate.

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## Phase II - Technology



- ◆ Handset based solution
  - GPS
- ◆ Network based solution
  - Time Distance of Arrival
  - Angle of Arrival
  - Signal Pattern Matching

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## Phase II - Accuracy



- ◆ Handset Based Solution
  - 50 meters / 67% of the calls
  - 150 meters / 95% of the calls
- ◆ Network Based Solution
  - 100 meters / 67% of the calls
  - 300 meters / 95% of the calls

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## Phase I Accuracy



Approximately 7 sq. km.

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## Phase II – Handset 67%



Approximately .00785 sq. km

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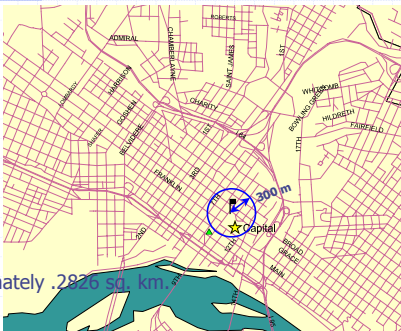
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## Phase II – Network 95%



Approximately .2826 sq. km

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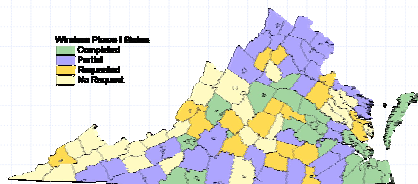
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## Wireless Phase I Status



- ◆ 34 localities deployed with all providers.
- ◆ 52 have implemented with at least one.
- ◆ Monthly status reports on website.

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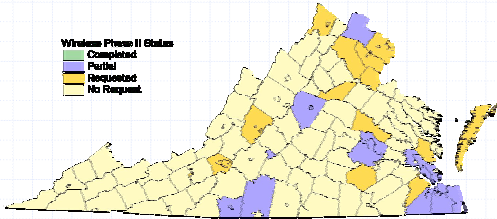
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## Wireless Phase II Status



Wireless Phase II Status  
Completed  
Partial  
Requested  
No Request



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## Wireless Funding



- ◆ No funding available for Phase 0 and must have wireline E-911.
- ◆ No secondary PSAPs.
- ◆ All "reasonable and direct" costs are funded by the Board.
- ◆ Must commit to and select an implementation date before being eligible for funding.

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## Wireless Funding (cont.)



- ◆ Dedicated equipment
  - 100% funded by Board.
  - Includes CPE wireless upgrades, call counting software, trunking costs, mapping systems, etc.
- ◆ Shared equipment/personnel
  - Proportionally funded by the Board based on the percentage of wireless E-911 calls to total calls in the PSAP (10.42% minimum and \$30,000 minimum for net personnel funding).

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## Wireless Funding (cont.)



- ◆ Mapping data including photography, centerline and addressing data.
- ◆ Fund PSAP personnel for the mapping function to the wireless percentage (same as other PSAP personnel).
- ◆ Fund addressing equipment (GPS receiver) to the wireless percentage.

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## Funding Submissions



- ◆ Submissions by Oct. 1 proceeding the fiscal year (soft deadline).
- ◆ Board will approve by March 1.
- ◆ Distribution is made beginning July 1.
- ◆ Funding provided in quarterly installments (exceptions can be made if needed).

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## True-up Process



- ◆ Conducted between July and September after the end of the fiscal year (required by *Code*).
- ◆ PSAP must provide actual costs for wireless and call load data.
- ◆ Actual costs may differ from estimated so long as actual are still allowable.
- ◆ Locality may be required to return funding or may be eligible for additional funding.

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VA911.ORG



- ◆ What's New
- ◆ Wireless
- ◆ Wireline
- ◆ Contacts
- ◆ Resources
- ◆ About
- ◆ Banner

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